

OPTIQUEST Q53

User's Guide

**Guide de l'utilisateur
Bedienungsanleitung
Manual de instrucciones**

OPTIQUEST[®]

User's Guide

OPTIQUEST Q53

15 (13.8" Viewable Diagonal) Flat Square
Color Monitor with Plug & Play †

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For your records

The serial number of this product is on the back of the monitor. Write the serial number in the space below and keep this guide as a permanent record of your purchase to aid in identification in the event of theft or loss.

| | |
|-----------------------|----------------------|
| Product Name: | Optiquest Q53 |
| Model Number: | VCDS21359-1 |
| Serial Number: | _____ |
| Purchase Date: | _____ |



Safety Guidelines

Caution: Use a power cable that is properly grounded. Always use the AC cords listed below for each area:

| | |
|-------------------|--------------------------------|
| USA | UL |
| Canada | CSA |
| Germany | VDE |
| Switzerland | SEV |
| Britain | BASEC/BS |
| Japan | Electric Appliance Control Act |

In other areas, use AC cord which meets local safety standards.

FOR EUROPEAN VERSION ONLY

This appliance is supplied with a moulded three pin mains plug for your safety and convenience. A 13 amp fuse is fitted in this plug. Should the fuse need to be replaced, ensure that the replacement fuse has a rating of 13 amps and that it is approved by ASTA or BSI to BS1362. Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover, the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be purchased from your local **ViewSonic** dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME, THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.

If a new plug is to be fitted, please observe the wiring code as shown below. If in any doubt, please consult a qualified electrician.

WARNING: THIS APPLIANCE MUST BE GROUNDED.

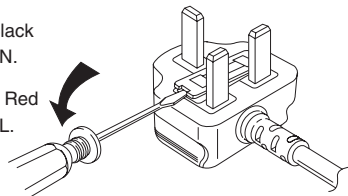
Important: The wires in the main leads are coloured in accordance with the following code:

| | |
|--------------------|---------|
| Green-Yellow | Ground |
| Blue | Neutral |
| Brown | Live |

The colours of the wires in the main leads of this appliance may not correspond with the coloured markings identifying the terminals in your plug. Please comply with the following instructions:

- The Green-Yellow wire must be connected to the Green or Green-Yellow terminals in the plug marked with the letter E or with the ground symbol.
- The Blue wire must be connected to the Black terminal in the plug marked with the letter N.
- The Brown wire must be connected to the Red terminal in the plug marked with the letter L.

Note: To replace the fuse, open the fuse compartment with a screwdriver.



FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause unacceptable interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult your dealer or an experienced radio/TV technician for help.

FCC Warning:

To assure continued FCC compliance, the user must use a grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. Also, any unauthorized changes or modifications to this monitor would void the user's authority to operate this device.

Power Supply Cord USA

For units with 100-120V input voltage in the USA, use the following:

UL Listed and CSA Certified Type SVT or SJT No. 18/3 AWG rated 125VAC 7A minimum. One end terminated in a molded on parallel blade, grounding attachment cap or hooded attachment cap (15A, 125V configuration), other end terminated in a molded on appliance coupler.

Department of Industry Canada (IC) Compliance Notice

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

CE Certification



This device complies with the requirements of the EEC directive 89/336/EEC with regard to "Electromagnetic compatibility."

CONTENTS

Safety Guidelines iii
FCC Information iv

1. *Getting Started*

Package Contents 3
Quick Installation 4
Monitor Stand Removal 5
Features 6

2. *Operation*

Monitor Controls 9
Timings 11
Plug and Play + 13
DDC Diagnostic Utility 14
Power Management System 15

3. *Technical Data*

Specifications 17
Dimensions 19

4. *Troubleshooting*

Problem Chart 21

5. *Care and Safety Tips*

Helpful Hints 23
Safety Tips 23
Care of Your Monitor 24
Warranty 25

Index 27

Getting Started

1

Package Contents

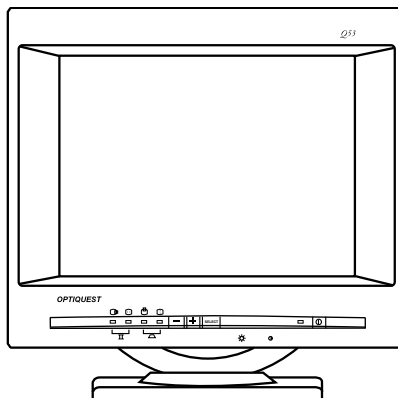
Congratulations on your purchase of an **Optiquest Q53** high performance color monitor.

Your **Optiquest Q53** package includes the following:

- **Optiquest Q53** monitor
- Attached video cable with 15 pin high density (HD) mini D-sub connector
- Power cord
- User's guide
- Software diskette or CD ROM which includes:
 - Opti-Green® for Windows® 3.1x and DOS (monitor power saving software).
 - ViewSonic® monitor installation file (*VS*.inf*) for Windows® 95 (required for *Plug & Play*. See pages 13 and 14).
 - DDC™ (Display Data Channel) diagnostic utility *DDCTEST.EXE*. This file is used for analyzing the DDC, a communication protocol for Windows 95 (See page 14).

Important!

Save the original box and all packing material for future shipping needs.



1 Look for the serial number on the back of the monitor. Please write number in the space provided (page ii, For your records) in front of the user's guide.

2

Is your computer an IBM® or compatible? **2a**

3 Make sure that computer is off before making connections. Attach video cable to computer's video card output port.

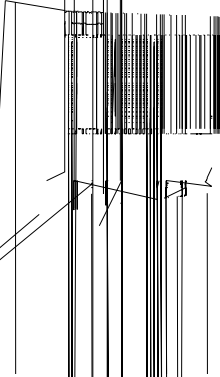
4 Attach power cable to monitor. Attach power cable to power source.

5 Turn computer on. Turn monitor on.

6 Adjust user controls according to personal preference (see Chapter 2).

Is the image satisfactory? **6a** See Troubleshooting Chapter 4.

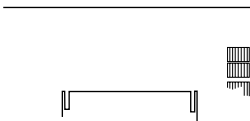
Installation is complete!
Enjoy your new Q53 high performance graphics monitor!



Monitor Stand Removal

If you want your monitor to sit flat on top of a desktop computer or desk, you can remove the stand.

To remove the stand:



Features

Superior Image ...

- 15" (13.8" viewable diagonal), 0.28mm dot pitch, high resolution, non-interlaced technology provides **sharp, flicker-free images**.
- Microprocessor-based controls save your adjustments for each video mode. There is no need to make adjustments every time you use your computer.

Ergonomic Design ...

- **Anti-reflection coating** reduces eye strain.
- **Tilt base** allows 90° rotation horizontally and 15° vertically for greater user comfort.
- **Low-frequency magnetic field prevention and electrostatic charge** reduction meets strict MPR-II emissions standards for increased user safety.

Environmentally Friendly ...

- **Power management system** conforms to VESA® DPMS™ standards and controls energy consumption when the monitor is not in use.
- This product is **Energy Star™** compliant.
- All plastic parts are **recyclable**. All materials are strictly selected for ease of maintenance, inspection, and disposal.
- Our shipping cartons are made of **recyclable material**.

Precision Timing ...

- **True multi-scanning** ability allows automatic tracking of horizontal frequencies from 30 to 70 kHz and vertical frequencies from 50 to 100 Hz.
- **Twelve factory preset video modes** are available for image size and positioning.
- **Fifteen additional timings** are user definable for a total of 27 timing settings.

System Flexibility ...

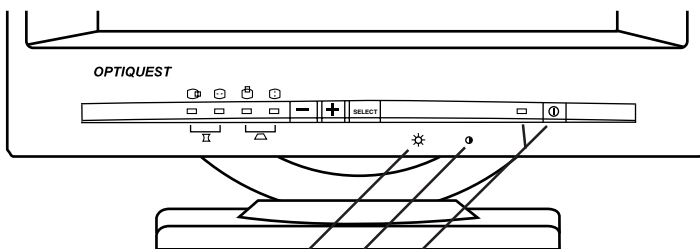
- Equipped with DDC1™ and DDC2B™ for **Plug & Play** † compatibility.
- **Automatic universal power supply** is built in permitting AC power input of 90 to 264 volts at 50 or 60 Hz.
- **Compact case** allows for a large screen monitor without loss of desk space. The stand is removable.
- The monitor is compatible with VGA, SVGA, VESA, and high resolution video modes up to **1280 (H) x 1024 (V)**.
- The monitor may be used with **IBM® or a compatible PC and Macintosh®***.

**Macintosh computers require ViewSonic® Macintosh adapters. Contact your local dealer or ViewSonic for your free adapter. See Chapter 4 on Troubleshooting for a telephone number in your area.*

OPERATION

2

Controls



Power switch and power LED: Turns the monitor on or off.
When on, the LED is green.
When the monitor is in power saving mode the LED is orange.



(Dial is hidden beneath the symbol.)
Contrast: Adjusts the contrast between the image background (black level) and the foreground (white level).
Clockwise increases the contrast.
Counter-clockwise decreases the contrast.




(Dial is hidden beneath the symbol.)
Brightness: Adjusts image brightness (the backgrounds' black level).
Clockwise increases brightness
Counter-clockwise decreases brightness

Note:

Each time the monitor turns on, it automatically degausses. Degaussing removes magnetic field build up that can affect color purity and convergence. Continually turning on and off the monitor can cause it damage. If you turn on the monitor and immediately turn it off, wait 15 minutes before turning it on again.



Screen Size Adjustments

To select a control to adjust:

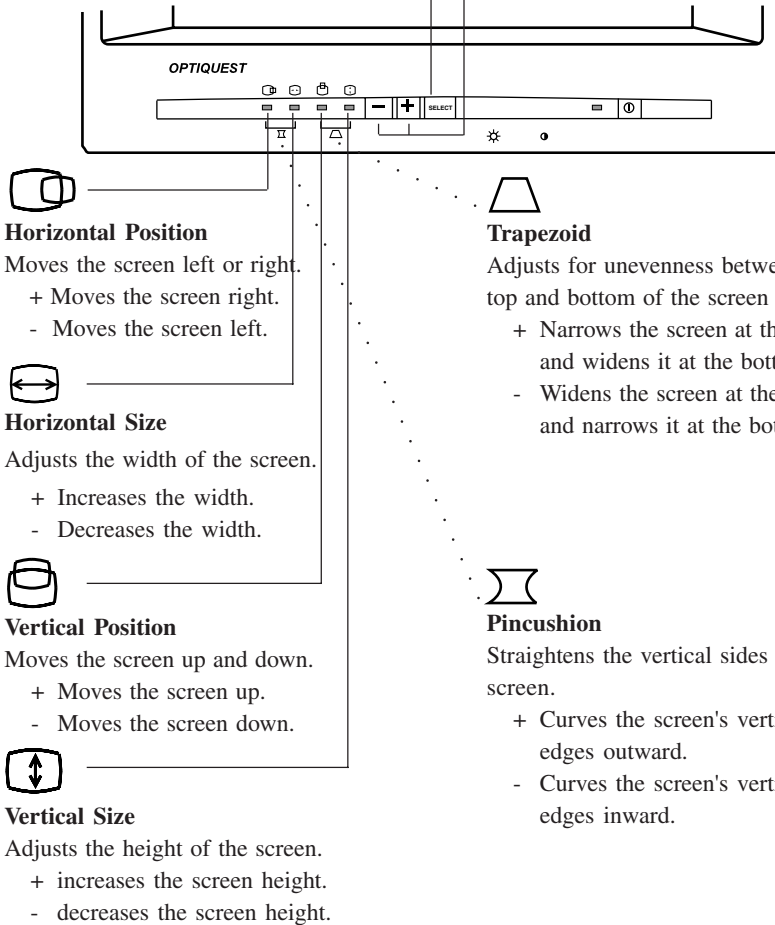
1. Push the Select button. 

When a control is selected, its LED will light.
 2. Push the button repeatedly until you reach the control you want.
- The control selected cycles from left to right as you push the button. When two LED's are both on, the Pincushion or Trapezoid control is selected.

To adjust a selected control:

1. Push the + button. 
2. Push the - button. 

If you are using a factory-set screen resolution (page 12), you can return to the preset screen adjustments by pressing the + and - buttons at the same time.



Timing Chart

The **Optiquest Q53** digital monitor can run at an extensive range of resolutions and refresh rates. Certain standard resolutions are factory preset. There are also 15 timings which are user definable. For example, if your video card is set up to run 1024 pixels x 768 lines at an 80 Hz refresh rate, once you have adjusted the screen size and position to your preferences, the monitor will save this information to memory. Every time you run this resolution at this refresh rate, the monitor will recall your adjustments.

The following table lists the maximum refresh rates at which the **Optiquest Q53** will operate at a number of standard resolutions. While the monitor is capable of this level of performance, not all video cards are capable of running at these high refresh rates. Please see your video card user's guide to ensure compatibility.

Warning: *Do not exceed the maximum refresh rate listed in the table below for your monitor. Doing so may result in permanent damage to the monitor. Some graphics cards support refresh rates higher than the monitor is capable of handling.*

User Definable Timings

| Resolution | Maximum Refresh Rate |
|----------------|----------------------|
| pixels x lines | Hz |
| 640 x 480 | 100 |
| 800 x 600 | 100 |
| 1024 x 768 | 86 |
| 1280 x 1024 | 65 |

All resolutions are non-interlaced.

Video Timing

The video timing mode is made up of three elements:

1. The resolution is the number of data pixels times the number of data lines that make up the screen.
2. The horizontal frequency is the speed that the electron beam travels across the screen, left to right.
3. The vertical frequency, or refresh rate, is the speed that the electron beam finishes all the rows in the screen and returns to the top.

Factory Preset Timings

The following table lists the factory preset timings:

| | | Resolution | Horizontal Frequency | Vertical Frequency | Polarity of Synchronizing Signal |
|------|----------------|----------------|----------------------|--------------------|----------------------------------|
| | Timing | Pixels x Lines | kHz | Hz | Horiz/Vertical |
| VGA | 640x480@60Hz | 640 x 480 | 31.47 | 60 | -/- |
| VESA | 640x480@75Hz | 640 x 480 | 37.50 | 75 | -/- |
| VESA | 640x480@85Hz | 640 x 480 | 43.27 | 85 | -/- |
| VESA | 800x600@72Hz | 800 x 600 | 48.08 | 72 | +/+ |
| VESA | 800x600@75Hz | 800 x 600 | 46.88 | 75 | +/+ |
| VESA | 800x600@85Hz | 800 x 600 | 53.67 | 85 | +/+ |
| VESA | 1024x768@70Hz | 1024 x 768 | 56.48 | 70 | -/- |
| VESA | 1024x768@75Hz | 1024 x 768 | 60.02 | 75 | +/+ |
| VESA | 1024x768@85Hz | 1024 x 768 | 68.66 | 85 | +/+ |
| VESA | 1280x1024@60Hz | 1280 x 1024 | 63.98 | 60 | +/+ |
| MAC | 832x624@74.6Hz | 832 x 624 | 49.73 | 74.6 | -/- |
| MAC | 1024x768@75Hz | 1024 x 768 | 60.20 | 75 | -/- |

Note

- Input timing should be within the horizontal and vertical frequency ranges in order to set the screen size and position. Before registering a new signal, check its horizontal and vertical timing specifications.
- The factory preset timing is registered when the difference between the user definable timing and the factory preset timing is smaller than the allowable deviation; also, the polarity of their synchronizing signals must be the same.

Plug & Play †

For Windows® 95 users

Plug and Play is Microsoft®'s method of providing automatic peripheral connections in Windows 95.

Because your new monitor features the VESA® (Video Electronics Standards Association) DDC™ (Display Data Channel) standard, the monitor's resolutions are simple to adjust when used with a DDC compatible video card in the *Plug and Play* environment.

DDC is a protocol which allows the monitor to communicate with the video card, so the resolutions can be changed in the Display's Settings section found in the Windows 95 Control Panel.

To use *Plug and Play*:

Install the information file (.inf file) for this monitor. The installation program, titled *Install.exe* is on the disk or the CD ROM included with the monitor.

To install the program from the OptiGreen disk:

1. With your computer on, insert the disk into the computer's disk drive.
2. Click the Windows 95 **Start** menu button.
3. Select **Run**.
4. Type in **A:\install.exe** if your disk drive is A.
Type in **B:\install.exe** if your disk drive is B.
5. Click **OK** and follow the instructions.
6. Restart your computer for the installation to take effect.

To install the program from the **ViewSonic** Display Suite™ CD :

1. With your computer on, insert the CD into the CD ROM drive.
2. Wait for the CD to automatically start.
3. Select **Windows 95 Plug & Play**.
4. Select **Install**.
5. Restart your computer for the installation to take effect.

Note

Some older computer systems are not compatible with the DDC standard. If your monitor is displaying a monochrome image or the wrong resolution, call ViewSonic's customer support for a non-DDC adapter. If you upgrade to a DDC compatible system later and want to use Plug & Play, just remove the adapter.

DDC™ Diagnostic Utility

For IBM computers and compatibles

The **Optiquest Q53** uses DDC (Display Data Channel) protocol to communicate with your computer's video card. The software diskette or CD ROM included in the **Optiquest Q53** package has a utility file called *DDCTEST.EXE*. This utility is useful for troubleshooting if DDC-related problems occur when using Windows® 3.1 or Windows® 95.

When you run the DDC Diagnostic Utility, one of two messages will appear:

1. If the utility detects that DDC is functioning, the following appears:

*ViewSonic/Optiquest Plug & Play monitor: Q53 successfully detected.
Hit any key to read and decode the EDID information...(ESC to exit)*

If you hit a key, you will see information about the monitor. This information is a table of EDID codes (Extended Display Identification Data) and an explanation of the codes. Press ESC to exit then:

- a. Check if DDC is enabled in Windows. Refer to the *README.TXT* file on the ViewSonic® diskette or CD ROM for instructions on how to enable DDC in Windows.
- b. Install the ViewSonic *MONITOR.INF* file included on the ViewSonic diskette or CD ROM. It is titled *VSdatecode.inf*, with the date code in year/month/day. Refer to the *README.TXT* file for installation instructions.

If Plug & Play still does not work after you have followed the procedure above, call ViewSonic Customer Support.

2. If the utility detects that DDC is not functioning, the following appears:

ViewSonic/Optiquest Plug & Play monitor was not detected

Exit the utility. Turn the monitor off. Wait ten seconds and turn the monitor on. Try the DDC Diagnostic Utility again. If you still receive the message that the monitor was not detected:

- a. Check your computer or graphics board manufacturer's user's guide to see if your graphics system is DDC compatible.
- b. Check the video cable connector for bent or broken pins.
- c. Refer to the *README.TXT* file troubleshooting section (included on the ViewSonic diskette or CD ROM).

If the procedure above does not work, call ViewSonic Customer Support.

Power Management System

This monitor meets VESA® DPMS™ (Display Power Management Signaling) standards. For the monitor's power saving feature to work, the video board or computer must also meet VESA DPMS standards.

| State | LED | Power | Recovery Time |
|---------|--------|--------------------|---------------|
| On | green | 95 watts (typical) | N/A |
| Standby | yellow | <30 watts | <3 sec |
| Suspend | yellow | <8 watts | <10 sec |
| Off | yellow | <8 watts | <10 sec |

Note: The Q53 complies with European NUTEK Power Management Standards.

Note: The Off state means the monitor is in the lowest DPMS state with the highest power savings.

The monitor goes into these power saving stages with the following video synchronization signals:

| State | Horizontal Sync | Vertical Sync |
|---------|-----------------|---------------|
| On | On | On |
| Standby | Off | On |
| Suspend | On | Off |
| Off | Off | Off |

The monitor automatically goes through the Power Management System steps when it is idle.

To conserve energy, we recommend turning the monitor off at the power switch when it will not be used for long periods of time.

Technical Data

3

Specifications

| | | | |
|---------------------------------|------------------------|---|---------------------------------------|
| CRT | Type | 15"(13.8" viewable diagonal), 0.28mm dot pitch, 90° deflection | |
| | Phosphor glass surface | RGB, medium persistence Anti-Static, Anti-Reflection coating, Standard light transmission rate = 57% | |
| Input Signal | Video Sync | RGB analog (0.714 Vp-p, 75 ohms) H/V separate (TTL) f _h : 30-70 kHz, f _v : 50-100 Hz | |
| Compatibility | PC | IBM® XT, AT, 386, 486, Pentium® or PS/2 and compatibles (from VGA up to 1280x1024 non-interlaced) | |
| | Macintosh®* | Macintosh II Family, LC, Quadra series, Power Macintosh* (up to 1024x768), Macintosh clones | |
| Connectors | Rear | Video-In | 15-pin high density (H.D.) mini D-sub |
| | | Power | 3-pin plug (IEC320) |
| Power | Voltage | AC | 90-264V 50/60 Hz ± 3 Hz |
| | Consumption | AC | 95 watts (typical) |
| User Controls/ Functions | Buttons | Power ON/OFF, Select, +, -, Contrast, Brightness, | |
| | Functions | Contrast, Brightness, Horizontal Size, Horizontal Position, Vertical Size, Vertical Position, Pincushion, Trapezoid | |
| Misconvergence | | 0.30mm (max) at center 0.40mm (max) at corner | |

*Macintosh® computers require ViewSonic® Macintosh adapters. Contact your local dealer or ViewSonic for your free adapter. See Chapter 4 on troubleshooting for a telephone number in your area.

Continued...

Specifications, continued

| | | | |
|--------------------------------|-----------------|---|-------------------------------------|
| Display Area | Factory setting | 260mm (H) x 195mm (V) typical | (Dependent upon signal timing used) |
| | Large scan | 280mm (H) x 205mm (V) | |
| Operating Conditions | Temperature | 41°F to 104°F (5°C to 40°C) | |
| | Humidity | 5% to 90% (no condensation) | |
| | Altitude | To 10,000 feet | |
| Storage Conditions | Temperature | -40°F to +140°F (-40°C to +60°C) | |
| | Humidity | 5% to 95% (no condensation) | |
| | Altitude | To 36,000 feet | |
| Dimensions | Physical | 380mm (W) x 374mm (H) x 394mm (D) 15.0" (W) x 14.7" (H) x 15.5" (D) | |
| | Packing | 488mm (W) x 429mm (H) x 468mm (D) 19.2" (W) x 16.9" (H) x 18.4" (D) | |
| Weight | Net | 12.5kg (27.5lb) | |
| | Gross | 14.5kg (31.9lb) | |
| Regulatory Agencies | | UL, CSA, FCC-B, DHHS, TUV, MPR-II, CE, PTB, VCCI-II, ISO9241-3, DOC-B, EN60950:1993 | |
| Power savings LED modes | | <i>On</i> | green 95W typical |
| | | <i>Stand By</i> | yellow <30W |
| | | <i>Suspend</i> | yellow <8W |
| | | <i>Off</i> | yellow <8W |
| Other Features | | Compatible with the display data channel standards DDC1™ and DDC2B™. | |

All products and trademarks are brand names of their respective companies. Specifications are subject to change without notice.

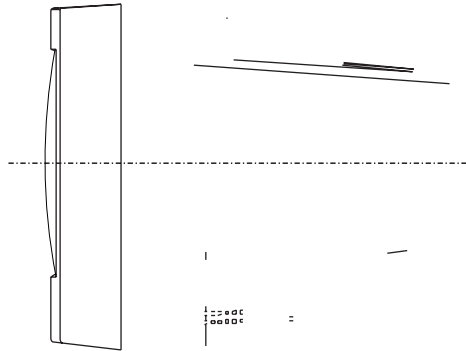
Dimensions

Front View

Width 380mm (15.0")
Height 330mm (13.0")
(without base)
Screen 351mm (13.8")
(diagonal viewable)

Side View

Depth 394mm (15.5")
Height 374mm (14.7")
(with base)
Base 233mm (9.2")
Tilt
up 10°
down 5°



Top View

Swivel Angle
left 45°
right 45°

Troubleshooting

4

If your **Optiquest Q53** monitor is not performing properly, use this troubleshooting chart for quick solutions to common problems. If the problem persists, call your monitor dealer. For further support or to order your free Macintosh adapter, call **ViewSonic®** customer support at the telephone number in your area:

| | |
|----------------------------------|---|
| U.S. and Canada only | 1-800-688-6688 |
| From outside U.S. and Canada | 909-869-7976 |
| From Europe | +44 (1293) 643-900 |
| From Asian/Pacific Rim countries | 886 (2) 248-4072 |
| Internet E-Mail: | vstech@viewsonic.com |
| World Wide Web: | http://www.viewsonic.com |

| Problem... | Possible Cause... | Remedy... |
|-------------------|----------------------------------|---|
| No picture | Power cord disconnected? | Connect power cord. |
| | Power switch off? | Turn on power. |
| | Faulty outlet? | Try another outlet. |
| | Monitor in power save mode? | Press any keyboard key. |
| | Computer or graphics card? | Check video card connections. |
| | Signal cable properly connected? | Connect signal cable properly. |
| | Signal cable connector? | Check connector for bent pins. |
| | Video sync signal? | Check if it's the video sync signal specified for the monitor. |
| | Using a Macintosh®? | Make sure the dip switch settings on your ViewSonic® Macintosh adapter are correct. |

Continued...

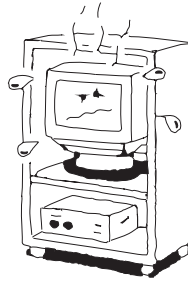
| Problem... | Possible Cause... | Remedy... |
|---|--|--|
| Image is scrolling or unstable | Scanning frequency outside acceptable range? | Reconfigure the graphics board. |
| Image is not centered, too small or too large | Horizontal, vertical positioning or horizontal, vertical size? | Adjust the horizontal, vertical positioning and size controls. |
| Characters appear dark | Brightness and contrast at minimum? | Adjust brightness and contrast. |
| Color is not pure | Build-up of magnetic fields within the monitor? | Turn the monitor off and then back on once to clear or degauss the magnetic fields. (Page 9) |
| | Magnetic object nearby? | Reorient object or monitor. |
| | Signal connector pin assignments incorrect? | Use correct signal connector. |
| | Signal cable properly connected? | Connect signal cable properly. |
| Image bounces or has wavy oscillations | Magnetic object nearby? | Reorient object or monitor. |
| | Electric power wiring nearby? | Your office may have electric power wiring behind the wall. Move the monitor. |
| Image is distorted | Is the earth's magnetic field interfering with display? | Face monitor east for best image quality. |

Care and Safety Tips

5

Helpful Hints

- Avoid exposing the monitor to direct sunlight or other heat source. The monitor should be facing away from direct sunlight to reduce glare.
- Choose a well ventilated area to position your monitor to allow adequate dissipation of heat. Do not place anything on top of the monitor.
- Ensure the monitor area is clean and moisture free.
- Keep the monitor away from magnets, motors, transformers, speakers, and televisions.
- Do not place heavy objects on the cable or power cord.
- Sit at least 18" from the monitor.



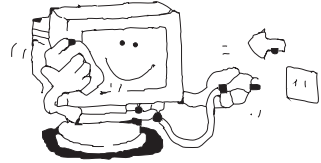
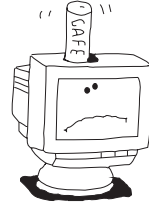
Safety Tips

- If smoke, abnormal noise, or strange odor is present, immediately switch the monitor off and call your dealer. It is dangerous to continue using the monitor.
- Never remove the rear cover. The display unit contains high-voltage parts. You may suffer electric shock if you touch these parts. Call your dealer or **ViewSonic®** Customer Support.



Care of Your Monitor

- When cleaning the monitor screen, use only non-ammonia based glass cleaners. Apply the cleaning solution to a clean, dry cloth, not directly to the screen.
- When cleaning the plastic case, use only a soft, dry cloth. If the plastic is very dirty, use a neutral, non-abrasive detergent. Do not use alcohol or ammonia based solutions.
- Avoid spilling liquid on the monitor.
- Always handle your monitor with care when moving it.



LIMITED WARRANTY OPTIQUEST Q53 MONITORS

What the warranty covers:

ViewSonic® warrants its products to be free from defects in material and workmanship during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, **ViewSonic** will, at its sole option, repair or replace the product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components.

How long the warranty is effective:

The **OPTIQUEST Q53** color monitor, including the display tube, is warranted for three (3) years for all parts and one (1) year for all labor from the date of the first consumer purchase.

Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

What the warranty does not cover:

1. Any product on which the serial number has been defaced, modified or removed.
2. Damage, deterioration or malfunction resulting from:
 - a. Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - b. Repair or attempted repair by anyone not authorized by **ViewSonic**.
 - c. Any damage of the product due to shipment.
 - d. Removal or installation of the product.
 - e. Causes external to the product, such as electric power fluctuations or failure.
 - f. Use of supplies or parts not meeting **ViewSonic**'s specifications.
 - g. Normal wear and tear.
 - h. Any other cause which does not relate to a product defect.
3. Removal, installation, and set-up service charges.

How to get service:

1. For information on obtaining warranty service, call **ViewSonic**. The customer support telephone numbers are: U.S. and Canada 1-800-688-6688; from outside the U.S. and Canada 909-869-7976; from Europe +44 (1293) 643-900; from Asian/Pacific Rim countries 886 (2) 248-4072. Internet E-Mail address: vsstech@viewsonic.com or World Wide Web: <http://www.viewsonic.com>
2. To obtain warranty service, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address, (d) a description of the problem, and (e) the serial number of the product.
3. Take or ship the product prepaid in the original container to your **OPTIQUEST** dealer, any **OPTIQUEST** service center or **ViewSonic**.
4. For additional information or the name of the nearest **OPTIQUEST** service center, contact your **OPTIQUEST** dealer or **ViewSonic**.

Limitation of implied warranties:

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Exclusion of damages:

VIEWSONIC'S LIABILITY IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT. **VIEWSONIC** SHALL NOT BE LIABLE FOR:

1. DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THE PRODUCT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF GOODWILL, INTERFERENCE WITH BUSINESS RELATIONSHIPS, OR OTHER COMMERCIAL LOSS, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.
3. ANY CLAIM AGAINST THE CUSTOMER BY ANY OTHER PARTY.

Effect of state law:

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

Sales outside the U.S.A.:

For **OPTIQUEST** products sold outside of the U.S.A., contact your **OPTIQUEST** dealer for warranty information and service.

INDEX

- Adjusting a screen control, 10
- Brightness, 9
- Care of monitor, 23
- CD ROM, 3
- Cleaning the monitor, 24
- Compatibility, 7, 17
- Connectors, 3, 17
- Contrast, 9
- Controls, 9, 17
- Customer Service, 21, 23
- Customer support, 21
- DDC, 13, 14
- Degaussing, 9, 22
- Diagnostic utility, 14
- Dimensions, 18, 19
- Display scan frequency, 7
- E-Mail, 21
- Ergonomics, 6
- Factory preset timings, 12
- FCC, iv
- Features, 6
- Frequency, 7, 12
- Height (screen adjustment), 10
- Horizontal position, 10
- Horizontal size (width), 10
- IBM (PC), 7, 17
- INF file, 3, 13
- Input Signal, 17
- Installation, 4
- Macintosh, 7, 17
- Macintosh adapters, 17
- Maintenance, 23
- Maximum refresh rates, 11
- Misconvergence, 17
- Operation, 9
- Package Contents, 3
- Phone numbers, 21
- Pincushion, 10
- Plug & Play, 13
- Power, 17
- Power Management System, 15
- Power switch, 9
- Refresh rates, 11
- Regulatory agencies, 18
- Resolution, 7, 11, 12
- Safety, 23
- Safety guidelines,iii
- Screen size adjustment, 10
- Selecting a screen control, 10
- Serial Number, ii
- Signal polarity, 12
- Software, 3
- Stand removal, 5
- Timing, 7, 11, 12
- Trapezoid, 10
- Troubleshooting, 21
- User timings, 11
- Vertical position, 10
- Vertical size (height), 10
- VESA, 13, 15
- Video cable, 3
- Video cards, 11
- Video timing, 11
- Voltage, 17
- Warranty, 25
- Weight, 18
- Width (screen adjustment), 10
- World Wide Web, 21

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